

# INTERACTIVE WAGERING SYSTEM WITH CRITERIA WAGERING

## Background of the Invention

This invention relates to interactive  
 5 wagering, and more particularly, to interactive  
 wagering applications that allow wagering criteria to  
 be established by users. When a wagering opportunity  
 arises that satisfies the user's criteria, the  
 application may automatically place a wager, notify the  
 10 user, or take other appropriate actions.

Wagering is a popular leisure activity. For  
 example, many racing fans wager on events such as  
 horse, dog, and harness racing. However, it may be  
 inconvenient to attend racing events in person. Not  
 15 all racing fans have sufficient time to visit  
 racetracks as often as they would like and some fans  
 have difficulties in obtaining suitable transportation  
 to the track. Off-track betting establishments are  
 available for fans who cannot attend racing events in  
 20 person, but fans must still travel to the off-track  
 betting establishments.

As a result, systems have been developed in  
 which fans may place off-track wagers using personal  
 computers connected to the Internet, standard  
 25 telephones, or set-top boxes.

It is an object of the present invention to improve such systems by providing an interactive wagering system that allows users to set various wagering criteria. When the criteria are satisfied, 5 certain selected actions may be taken by the system.

#### Summary of the Invention

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This and other objects of the invention are accomplished in accordance with the principles of the present invention by providing an interactive wagering 10 system in which an interactive wagering application may provide a user with an opportunity to establish various wagering criteria. When a wagering opportunity becomes available that satisfies the user's criteria, the wagering application may take an appropriate action.

15 Wagering criteria may include any suitable wagering-related parameters, such as a particular track, horse, jockey, trainer, track surface, race distance, silks (jockey colors), type of race (e.g., claiming, states, etc.), odds or changes in odds, class 20 ratings, gate position, purse amount, claim amount, weather conditions, etc. Users may select the criteria and multiple criteria may be established. For example, a user may desire to automatically place a wager or be notified of a wagering opportunity whenever the horse 25 "Cat Thief" is running and the jockey is "Pat Day."

The wagering application may determine when the wagering criteria are satisfied by comparing the wagering criteria to the racing data provided to the wagering application by a transaction processing and 30 subscription management system or other suitable equipment in the wagering system.

Various actions may be taken when the  
wagering criteria are satisfied. For example, the  
interactive wagering application may automatically  
place a wager. The user may select a desired wager  
5 type and a desired wager amount for such automatic  
wagers. Multiple sets of wagering criteria may be  
established, each of which has a different associated  
action.

The wagering application may alert the user  
10 when the wagering criteria have been satisfied, so that  
the user may decide whether to place a wager. The user  
may also be notified whenever a wager is placed  
automatically. Such notifications or confirmations may  
be used to alert the user to the automatic wagering  
15 activity.

Further features of the invention, its nature  
and various advantages will be more apparent from the  
accompanying drawings and the following detailed  
description of the preferred embodiments.

20 Brief Description of the Drawings

FIG. 1 is a schematic diagram of an  
illustrative interactive wagering system on which an  
interactive wagering application may be implemented in  
accordance with the present invention.

25 FIG. 2 is an illustrative display screen that  
the interactive wagering application may display to  
provide a user with an opportunity to select various  
types of desired wagering criteria that are to be used  
to identify wagering opportunities of interest in  
30 accordance with the present invention.

FIG. 4 is an illustrative display screen that the interactive wagering application may display to allow the user to search for a particular horse to use as a wagering criteria in accordance with the present invention.

FIG. 6 is an illustrative display screen that the interactive wagering application may display to provide the user with an opportunity to select a wager type and wager amount for the application to use when placing automatic wagers whenever the selected wager criteria have been satisfied in accordance with the present invention.

FIG. 8 shows how the user may select a desired set of wagering criteria from the screen of  
30 FIG. 7 using a movable highlight region in accordance with the present invention.

FIG. 9 is an illustrative display screen showing how wager criteria details may be displayed as a partial-screen overlay on top of an existing display screen provided by the interactive wagering application.

FIG. 10 is a flow chart of illustrative steps involved in using the wagering criteria features of the interactive wagering application in accordance with the present invention.

10 Detailed Description of the Preferred Embodiments

An illustrative interactive wagering system 10 in accordance with the present invention is shown in FIG. 1. Aspects of the invention apply to various different types of wagering, but are described herein primarily in the context of interactive wagering on races (e.g., horse races) for specificity and clarity.

Races may be run at racetracks 12, which may be located at various geographic locations. Races run at the racetracks may be simulcast to television viewers. For example, simulcast videos may be provided to users with satellite receivers or to off-track betting establishments via satellite.

System 10 may be used to provide an interactive wagering service to users of various user equipment: An interactive wagering application may be used to provide the wagering service. The interactive wagering application may run locally on the user equipment (e.g., on a set-top box, personal computer, cellular telephone, handheld computing device, etc.) or may run using a client-server or distributed architecture where some of the application is

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5 situations in which videos are to be transmitted over  
either high or low bandwidth pathways. Low bandwidth  
pathways may include telephone lines, the Internet,  
etc.

10 provide a television wagering service that includes  
selected simulcast videos, video from studio 16, and  
graphic overlays to television distribution facilities  
18 (for redistribution to user television equipment 22  
and user computer equipment 20), to user computer  
15 equipment 20, and to user telephone equipment 32 (if  
user telephone equipment 32 has a display capable of  
displaying moving images). Television distribution  
facilities 16 may be any suitable facilities for  
supplying television to users, such as cable system  
20 headends, satellite systems, broadcast television  
systems, or other suitable systems or combinations of  
such systems. User computer equipment 20 may be any  
suitable computer equipment that supports an  
interactive wagering application. For example, user  
25 computer equipment 20 may be a personal computer. User  
computer equipment 20 may also be based on a mainframe  
computer, a workstation, a networked computer or  
computers, a laptop computer, a notebook computer, a  
handheld computing device such as a personal digital  
30 assistant or other small portable computer, etc.

Each of television distribution facilities 18 is typically located at a different geographic

location. Users with user television equipment 22 may receive the television wagering service from an associated television distribution facility. User television equipment 22 may include, for example, a television or other suitable monitor. A television may be used to watch the television wagering service on a traditional analog television channel. User television equipment 22 may also include a digital or analog set-top box connected to a television distribution facility 16 by a cable path. A digital set-top box may be used to receive the television wagering service on a digital channel. If desired, user television equipment 22 may contain a satellite receiver, a WebTV box, a personal computer television (PC/TV), or hardware similar to such devices into which set-top box capabilities have been integrated. A recording device such as a videocassette recorder or digital recording device (e.g., a personal video recorder or digital video recorder based on hard disk drives or the like) may be used in user television equipment 22 to store videos. The recording device may be separate from or part of the other components of user television equipment 22.

User computer equipment 20 may receive the television wagering service using a video card or other video-capable equipment to receive analog or digital (e.g., moving picture experts group or MPEG) videos from a television distribution facility. User computer equipment 20 may also receive the television wagering service directly from video production system 14 using, for example, a modem link. If desired, the video for the television wagering service may be compressed (e.g., using MPEG techniques). This may be useful, for



example, if the path to user computer equipment 20 is a  
modem connection using telephone links. If video  
production system 14 is only used to serve user  
computer equipment 20 without traditional analog  
5 television capabilities, video production system 14 may  
only need to supply such digitally-compressed video  
signals and not analog television signals.

Video clips of races and other simulcast  
information may be provided to users in the form of a  
10 television wagering service or by an interactive  
wagering service provided by the interactive wagering  
application. If desired, race-related videos may be  
provided to the user by using video production system  
14 or other suitable equipment to route appropriate  
15 video clips from the simulcasts to the user in real  
time. Video clips may also be stored for later  
viewing. For example, one or more video servers  
located at racetracks 12, video production system 14,  
television distribution facilities 18, or other  
20 suitable locations may be used to store video clips.  
The stored videos may then be played back in real time  
or downloaded for viewing at user television equipment  
22, user computer equipment 20, or user telephone  
equipment 32. The video clips may contain videos of  
25 races, commentary, interviews with jockeys, or any  
other suitable race-related information. If desired,  
real-time or stored videos may be provided from  
racetracks 12 directly to user television equipment 22,  
user computer equipment 20, or user telephone equipment  
30 32 over the Internet or other suitable communications  
paths without involving video production system 14.  
Videos may also be provided by routing video signals

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management system 24 may contain computer equipment 26 and other equipment for supporting system functions such as transaction processing (e.g., handling tasks related to wagers, product purchasing, adjusting the amount of funds in user accounts based on the outcomes of wagers, video clip ordering, etc.), data distribution (e.g., for distributing racing data to the users), and subscriber management (e.g., features related to opening an account for a user, closing an account, allowing a user to add or withdraw funds from an account, changing the user's address or personal identification number, etc.). Databases within transaction processing and subscription management system 24 or associated with system 24 may be used to store racing data, wagering data and other transaction data, and subscriber data such as such as information on the user's current account balance, past wagering history, individual wager limits, personal identification number, billing addresses, credit card numbers, bank account numbers, social security numbers, etc. Using such databases may allow the user to access information more quickly and allows for central administration of the wagering service.

30 located at transaction processing and subscription  
management system 24. For example, video clips may be  
provided to the user on-demand. Interactive

5 related to the advertisement to the user.

Statistical racing data such as the post times for each race, jockey names, runner names and the number of races associated with each track, handicapping information (e.g., information on past performances such as the number of wins and losses for the past year, etc.), and weather conditions at various tracks may be provided by racing data collection and processing system 28. Some of the data may be collected from racetracks 12 and some may be provided by third party information sources such as Axcis Pocket Information Network, Inc. of Santa Clara, California or other suitable data sources.

Racing data may also be provided from  
30 totalisators 30. Totalisators 30 are the computer  
systems that may be used to handle wagers made at the  
racetracks, made at off-track betting establishments,

Totalisators 30 generate odds in real time. Totalisators 30 generate these odds based on information on which wagers are being placed (e.g., based on information on which wagers are being placed on races at racetracks 12). Totalisators 30 are available from companies such as Amtote International, Inc. of Hunt Valley, Maryland. Totalisators 30 may be associated with individual racetracks 12 or groups of racetracks 12. Totalisators 30 may communicate with one another using a communication protocol known as the Intertote Track System Protocol (ITSP). This allows totalisators 30 to share wagering pools. Totalisators 30 may provide racing data including information on the current races at racetracks 12, the number of races associated with each racetrack, win, place, and show odds and pool totals for each horse or other runner, and exacta, trifecta, and quinella payoff predictions and pool totals for every possible combination of runners. Totalisators 30 may also provide current odds and other real-time racing data for other types of wagers. Totalisators 30 may provide the time until post time for each race.

Totalisators 30 may provide race results, such as the order-of-finish list for at least the first three positions and payoff values versus a standard wager amount for win, place, and show, for each runner in the finish list. Payoff values may be provided for winning complex wager types such as exacta, trifecta, quinella, pick-n (where n is the number of races involved in the pick-n wager), and daily double. The

Totalisators 30 may also provide program information of the type typically provided in printed racing programs. Such program information may include early odds, early scratches, race descriptions (including the distance of each race and the race surface - grass, dirt, artificial turf, etc.), allowed class ratings (based on a fixed ratio of external criteria), purse value (payoff to winning runner), allowed age range of runners, and the allowed number of wins and starts for each runner.

Transaction processing and subscription management system 24 provides the racing data to users at user television equipment 22, user computer 30 equipment 20, and user telephone equipment 32 for use in following race results and developing wagers. If desired, racing data may be provided to users using

paths that do not directly involve transaction processing and subscription management system 24. For example, racing data may be provided from racing data collection and processing system 28 to user television equipment 22, user computer equipment 20, or user telephone equipment 32 using the Internet or other suitable communications paths.

User telephone equipment 32 may be a conventional telephone, a cordless telephone, a cellular telephone or other portable wireless telephone, or any other suitable telephone equipment. Users at user television equipment 22 and user computer equipment 20 may view information on the racing data on a television or other suitable monitor. Users at user telephone equipment 32 may listen to racing data using an interactive voice system. User telephone equipment 32 may be based on cellular telephones with displays. Users may view racing data displayed on such displays.

Users who wish to place wagers may establish an account at transaction processing and subscription management system 24. An account may also be established at one of totalisators 30. The user and the interactive wagering services may have their own bank accounts at financial institutions 38. A user may set up an account electronically by using user television equipment 22, user computer equipment 20, or user telephone equipment 32 to interact with the subscriber management functions of transaction processing and subscription management system 24. If desired, accounts may be established with the interactive wagering service with the assistance of customer service representatives at customer service

facility 36. Customer service facility 36 may be at the same location as transaction processing and subscription management system 24, may be part of system 24, or may be located remote from system 24.

5 Customer service representatives at customer service facility 36 may be reached by telephone. If user telephone equipment 32 is used to access the interactive wagering service, for example, user telephone equipment 32 may be used to reach the  
10 customer service representative using communications path 42. If user television equipment 22 or user computer equipment 20 is being used with the service, a telephone at the same location as that equipment may be used to reach the customer service representative.

15           The user's identity may be checked using  
social security number information or other  
identification information with the assistance of  
subscriber verification facility 40. The services of  
subscriber verification facility 40 are used to ensure  
20 that the user lives in a geographic area in which  
wagering is legal, that the user is of a legal age, and  
that the identification information (e.g., the user's  
social security number) matches the name provided by  
the user. If the user is using a cellular telephone or  
25 handheld computing device, the user's present physical  
location may be determined by determining which general  
part of the cellular telephone network is being  
accessed by the user or by using the cellular network  
or a handset-based location device such as a global  
30 positioning system (GPS) receiver in the body of the  
cellular telephone to pinpoint the user's location.  
This location information may be used to verify that

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In a typical enrollment process, the user provides personal information to the interactive wagering service and provides funds with a credit card or funds from the user's bank account. The interactive wagering service sets up an account for the user at transaction processing and subscription management system 24 and directs one of totalisators 30 to set up a new account for the user at the totalisator. The totalisator is also directed to credit the user's account to reflect the amount of funds provided by the user. After the user places a wager and wins or loses, the totalisator adjusts the user's totalisator account to reflect the outcome of the wager. The totalisator may periodically inform the interactive wagering service of the adjusted balance in the user's account. This may be accomplished using any suitable technique (e.g., periodically, continuously, on-request, etc.). For example, reports may be collected periodically (e.g., once a day in an end-of-day report) and provided to the interactive wagering service to reconcile the account balances at transaction processing and subscription management system 24 with the account balances at totalisators 30.

If the user makes a balance inquiry, the inquiry may be passed to the appropriate totalisator by transaction processing and subscription management system 24. If the user is charged a fee for  
30 subscribing to the service, the service may debit the fee from the user's account at the transaction processing and subscription management system 24.



Users at user television equipment 22, user computer equipment 20, and user telephone equipment 32 may place wagers by providing wagering data and otherwise interacting with transaction processing and subscription management system 24. The interactive wagering service may provide a user at user television equipment 22, user computer equipment 20, or user telephone equipment 32 that has display capabilities with screens containing various racing data. For example, the user may be presented with screens that allow the user to view the current odds for horses in an upcoming race at a given track.

The service may provide the user with interactive screens containing menus and selectable options that allow the user to specify the type of wager in which the user is interested and the desired wager amount. With a set-top box arrangement, for

5 suitable input or pointing device. With a cellular  
telephone with a display, the user may use buttons on  
the telephone. When the user has made appropriate  
selections to define a desired wager, the user  
television equipment, user computer equipment, or user  
0 telephone equipment may transmit wagering data for the  
wager to transaction processing and subscription  
management system 24.

Users with telephones may also interact with the service using an interactive voice response system located at transaction processing and subscription management system 24. The interactive voice response system may present menu options to the user in the form of audio prompts (e.g., "press 1 to select a \$2 wager amount," etc.). The user may interact with the service by pressing the corresponding buttons on a touch tone telephone. User telephone equipment 32 that is based on cellular telephones allows the user to interact with the wagering service in this way. User telephone equipment 32 that is based on cellular telephones with messaging and display capabilities also allows the user to interact visually with the interactive wagering service.

The components of system 10 may be interconnected using various communications paths 44. Communications paths 44 may include satellite paths, coaxial cable paths, fiber-optic paths, twisted pair paths, other wire or cable-based links, wireless paths

through free space, or any other suitable paths or combination of such paths. Communications over paths 44 may involve analog transmissions, digital transmissions, wireless transmissions, microwave transmissions, radio-frequency transmissions, optical transmissions, audio transmissions, or any other suitable type of transmissions or combination of such transmissions. Communications may involve Internet transmissions, private network transmissions, packet-based transmissions, television channel transmissions, transmissions in the vertical blanking interval of a television channel or on a television sideband, MPEG transmissions, etc. Communications may involve wireless pager or other messaging transmissions.

Communications paths 44 may include cable connected to cable modems, digital subscriber lines, integrated services digital network (ISDN) lines, or any other suitable paths. Examples of suitable communications paths are described below. Those examples are, however, merely illustrative. Any of the communications path arrangements described above or other suitable arrangements may be used if desired.

Communications paths that carry video and particularly uncompressed analog video or lightly-compressed or full-screen digital video generally use more bandwidth than communications paths that carry only data or that carry partial-screen digital video. For example, if it is desired to transmit high-quality simulcasts of races from racetracks 12 to video production system 14, analog or digital videos may be transmitted from racetracks 12 to video production system 14 over path 44a using satellite links. Video

may be transmitted from studio 16 to video production system 14 over path 44b using a satellite link or a high-speed terrestrial path such as a fiber-optic path. Studio 16 may also be located at the same site as video production system 14, thereby avoiding the need for a long-haul transmission path. Videos may be transmitted from video production system 14 to user computer equipment 20 over path 14c using a modem link (using, for example, a digital subscriber line, a telephone network link, a wireless link etc.) The modem link may be made over a private network.

A user with a cable modem may connect a personal computer or other such user computer equipment 20 to an associated cable system headend using path 44d. (The headend in such an arrangement would be one of the television distribution facilities 18 shown in FIG. 1.) The user may then receive videos from the headend via cable modem. Videos may be provided to the headend over path 44e using a network link, fiber optic links, cable links, microwave links, satellite links, etc. A user with a set-top box or similar device (shown in FIG. 1 as user television equipment 22) may also receive videos from a cable system headend using a cable modem or other such communications device over path 44f. In addition, a user with user television equipment may receive videos over the Internet or a private network using a telephone-based modem or other such communications device using path 44g. In a system with distributed processing, interactive wagering services may be provided using a television distribution facility 18 that includes equipment that supplements or replaces at least some of the equipment

at transaction processing and subscription management system 24.

If desired, user television equipment 22 or user computer equipment 20 may receive analog or  
5 digital videos from an associated television distribution facility over the communications paths normally used to distribute television programming (e.g., paths 44f and 44d). For example, videos may be received as part of a dedicated interactive wagering  
10 service television channel. If videos are provided as digital signals (e.g., MPEG signals), 10 or more digital videos may be carried on a single analog channel (or one digital video may be carried on one-tenth of the bandwidth of an analog channel). If the  
15 videos are not full-screen videos, even more videos may be simultaneously provided without a loss of image quality.

Racing videos may be provided to user telephone equipment 32 over a partially-wireless  
20 telephone Internet link or other telephone link using path 44n.

If desired, racing data may accompany the racing videos along any of these paths. Moreover, racing videos may be provided by routing them directly  
25 from racetracks 12 to user television equipment 22, user computer equipment 20 (e.g., over the Internet or a private network, etc.), or user telephone equipment 32. Racing videos may also be provided by routing them through transaction processing and subscription  
30 management system 24. If a cellular telephone or portable computing device has sufficient display capabilities to support moving images, racing videos

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Racing data and other information related to the interactive wagering service may be provided to users over paths connected to transaction processing and subscription management system 24. For example, racing data and other data for the service may be provided to user computer equipment 20 over path 44h using a modem link. Path 44h may be a private network path or an Internet path. Path 44h may use telephone lines, digital subscriber lines, ISDN lines, wireless data paths, or any other suitable type of communications links. User television equipment 22 may receive data for the wagering service over communications path 44i, which may be a telephone line, digital subscriber line, ISDN line, or other suitable type of communications path and which may use a private network path or an Internet path, etc.

The communications paths 44k that are used to connect various other components of the system typically do not carry high-bandwidth video signals. Accordingly, paths 44k may be telephone-like paths that are part of the Internet or a private network. Such paths and various other paths 44 may be dedicated connections for security, reliability, and economy.

30 User telephone equipment 32 may receive information for the wagering service via path 44m. If user telephone equipment 32 is a standard (non-cellular) telephone, such information may be in the

5 interactive voice response equipment that provides such information to the user and that responds to touch-tone signals from the user when the user responds to prompts by pressing buttons on the user's telephone.

Racing data and other information for the  
20 interactive wagering service may be provided to  
cellular telephones in the form of alphanumeric  
messages. Such messages may be transmitted to the user  
by using paging or other alphanumeric messaging formats  
or any other suitable data communications scheme. If  
25 desired, data may be provided to the cellular  
telephones over the voice channel and decoded by the  
cellular telephone using modem circuitry or other  
suitable circuitry. Data may also be provided using  
any other suitable cellular or wireless path.

30 Regardless of the way in which racing data and other  
information for the interactive wagering service are  
provided to the cellular telephone, such information



5           Racing data and other interactive wagering  
service information for the users may be provided in  
one or more continuous data streams, may be provided  
periodically (e.g., once per hour or once per day), or  
may be provided using a client-server arrangement in  
10 which data is requested by a client processor (e.g.,  
user television equipment 22, user computer equipment  
20, user telephone equipment 32, or any other such  
equipment) from a server (e.g., a server implemented  
using computer equipment 26 at transaction processing  
15 and subscription management system 24 or computer  
equipment at another suitable location. Videos may  
also be provided using any of these techniques.

A return communications path between the user and the interactive wagering service may be used to allow the user to place wagers and otherwise interact with the interactive wagering service. For example, a user with a standard telephone or a cellular telephone may interact with the service by pressing touch-tone keys on the telephone in response to audio prompts provided by an interactive voice response system at transaction processing and subscription management system 24. If desired, users may call customer service representatives at customer service facility 36 and place wagers with manual assistance. The user of a cellular telephone may interact with the wagering service by selecting menu options and otherwise interacting with information displayed on the cellular

telephone. When a selection is made, software implemented on the telephone may be used to assist the user in transmitting appropriate data (e.g., wagering data) to the wagering service. Such data may be

5 transmitted using any suitable technique. For example, data may be transmitted using a wireless data link that is separate from the cellular voice channels. Data may also be transmitted over the voice channel (e.g., using a modem built into the cellular telephone, by

10 automatically generating touch-tone signals that may be recognized by the interactive voice response system at transaction processing and subscription management system 24, or using any other suitable arrangement). These approaches may be used even if the user receives

15 racing data and other information for the service using a platform other than a telephone-based platform.

Users with user television equipment 22 may interact with the service by sending data (e.g., wager data) to transaction processing and subscription

20 management system 24 using path 44i or using paths 44f and 44j. Users with user computer equipment 20 may send data (e.g., wager data) to transaction processing and subscription management system 24 via path 44h or paths 44d and 44j. Users at any user equipment may

25 send data for the service to locations other than transaction processing and subscription management system 24. For example, the user may provide information directly to customer service facility 36, etc.

30 If desired, the user may send data to the service at transaction processing and subscription management system 24 using different paths than those

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If desired, the user may interact with the wagering service using more than one platform. For example, the user may place a wager using a cellular telephone while the user is driving home. When the user arrives home, the user may determine the outcome of the wager by watching a video of the race on user television equipment. Later in the day, the user may check the user's account balance using a personal computer. This is merely an illustrative example. The various wagering platforms may be used in any suitable combination.

Although system 10 has been described in the  
30 context of a system that supports multiple wagering  
platforms, system 10 may support fewer platforms if  
desired. For example, aspects of the invention may be

implemented using a system 10 that only supports cellular telephone wagering or wagering using handheld computer devices. If desired, system 10 may be configured so that it does not support personal  
5 computer wagering, wagering with standard telephones, or wagering with user television equipment. The system may support cellular telephones and/or handheld computing devices such as personal digital assistants, palm-sized computers, etc. in combination with any  
10 other suitable platform.

The criteria wagering features of the present invention are described herein primarily in the context of an interactive wagering application implemented on user television equipment such as a set-top box. This  
15 is only illustrative. An interactive wagering application implemented on any suitable platform (user computer equipment, user telephone equipment, etc.) may be used to provide such features if desired.

The interactive wagering application may be  
20 implemented using application software that runs primarily on a set-top box or other such local platform or using a remote server or other computer that is accessed from a local platform. Arrangements in which interactive wagering services are implemented using  
25 software on remote computers that is accessed on-demand from local platforms may be referred to as client-server arrangements. Such client-server arrangements may be used to allow client processes on set-top boxes to access server processes running on servers located  
30 at cable system headends or other television distribution facilities 18 (FIG. 1). Regardless of the type of system architecture or platform used, the

software that supports the interactive wagering service features described herein may be referred to as an interactive wagering application.

An illustrative display screen that may be  
5 provided by the interactive wagering application is shown in FIG. 2. Screens such as screen 46 of FIG. 2 may be accessed in a variety of ways. A user may initially be provided with an opportunity to launch the interactive wagering application. The system may allow  
10 the user to launch the application by pressing a menu option in an interactive television program guide or other set-top box application or menu. If desired, the application may be launched automatically whenever the user tunes to a particular channel (e.g., the  
15 television wagering channel). After the user has tuned to this channel, the system may display an interactive icon on the user's television screen that indicates that the interactive wagering application is available. If the user presses an "OK" remote control key, the  
20 system may launch the application.

The first screen displayed by the interactive wagering application when it is launched may be a pop-up menu that is displayed on top of the video for the television wagering channel. The menu may contain menu  
25 options that allow the user to inform the application that the user wishes to configure the system, to place a wager, etc. The user may select a set-up option from such a menu that causes the application to display a screen such as screen 46 of FIG. 2.

30 Screen 46 of FIG. 2 may contain selectable tab options such as tab option 48 (for setting options), tab option 50 (for setting automatic wagering

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Suitable criteria that may be used to trigger actions include the particular track at which a race is to be run (e.g., Churchill Downs), a particular horse, Jockey, or Trainer. Other suitable criteria include the surface for a race (e.g., turf), the distance of a race, or various race statistics. Criteria may also include the colors of a jockey's silks. If desired, criteria may include odds-based criteria. For example, a criteria may be whether the current odds for a horse have changed from the morning line odds for that horse by more than a certain amount, etc. These criteria are merely illustrative. Any suitable criteria may be used if desired.

The wagering application may determine when the selected criteria have been satisfied by comparing the wagering criteria to the racing data provided to

the application. The racing data may be provided by transaction processing and subscription management system 24 or may be otherwise accessed by the wagering application (e.g., by directly accessing the data in communications with totalizators 30, racing data collection and processing system 28, or other such equipment).

In the example of FIG. 2, the user has used highlight region 54 to select the criteria "horse," "surface," and "distance." These criteria may be highlighted (as indicated by the letter "H" on each of the selected criteria) by, for example, displaying them in a different color (for example, yellow) then the remaining criteria (which may be displayed, for example, in blue). As shown in FIG. 3, the interactive wagering application may then display a screen such as screen 56 in which the user is provided with an opportunity to fill in the entries for the criteria categories selected in screen 46 of FIG. 2. For example, action option 58 may be provided to allow the user to select which action is to be taken when the wager criteria are met. The user may navigate through the entries for option 58 by pressing right and left remote control arrows. The availability of additional entries for the option may be indicated with arrows 60. A highlight region 62 may be used to select desired options.

Suitable actions that may be taken when the wager criteria are met include displaying a reminder (prompt), alerting the user with an audible reminder, sending a reminder to the user as e-mail, a paging message, a telephone call, etc. E-mail messages may be

distributed to users at user computer equipment 20 (FIG. 1), user television equipment 22, a cellular telephone with e-mail capabilities, a handheld computing device or other small portable device with e-mail capabilities, etc. Paging and telephone calls may be handled similarly. Wagers may be placed automatically when the criteria are satisfied. If desired, the user may be notified when a wager is automatically placed. For example, the user may select an option that directs the system to send an e-mail message is sent to the user whenever the system automatically places a wager based on the criteria selected by the user.

15       Selecting wagering criteria for certain  
options such as horse option 64 may involve lists of  
criteria with entries that are too numerous to easily  
accommodate with a right/left arrow interface such as  
used in connection with option 58. Such options may  
use ancillary screens or other features to assist the  
20       user in selecting desired wagering criteria. For  
example, the number of horses from which a user may  
select a desired horse or horses to establish as  
wagering criteria may be too large to list on a single  
screen. The system may therefore provide a search  
25       interface such as the search interface shown in screen  
66 of FIG. 4 whenever the user selects an option such  
as option 64 of FIG. 3.

As shown in FIG. 4, the arrangement of screen 66 provides the user with an opportunity to search for a desired horse by entering at least part of the horse's name. Within any given cell, up and down remote control arrow keys may be used to select a





criteria, may be best selected using an approach in which right and left arrow keys are used to display different possible entries. Other criteria, such as horse names, jockey names, tracks, etc., may be  
5 sufficiently extensive that they are best selected using a search feature or other assisted-selection arrangement.

Other criteria may be best selected using still different approaches. For example, when the user  
10 desires to select a desired distance criteria using distance option 80 of FIG. 3, the system may display a separate screen in which the available distances are arranged in two columns. The user may select the desired distance using a highlight region. This type  
15 of approach may be used whenever it is desired to provide more visual information for the user than the simple right/left arrow key approach in which the user selects from criteria that are displayed on the same line as the option.

20 These different approaches for selecting wagering criteria are merely illustrative. Any suitable approaches or combinations of such approaches may be used if desired. Such approaches may allow the user to select a single criteria or multiple criteria.  
25 Criteria may be combined using any suitable user-selected or default logic. For example, the default provided by the interactive wagering application may be that all criteria must be satisfied before a given action is taken (i.e., AND logic). As an alternative,  
30 or in combination with AND logic, OR logic or other suitable logic functions (including NOT functions and non-boolean, weighted logic functions) may be used.

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If the user desires to have the wagering application automatically place wagers when the user's selected criteria are matched, the user may select an "auto" setting with action option 58, as shown in FIG.

5 6. If the selected action is that the system is to automatically place a wager, the user may be provided with an opportunity to select a wager type (using an option such as option 84) and a wager amount (using an option such as option 86). The criteria that are used  
10 to trigger the automatic wager may be set using options such as option 64 (used to select a desired horse), option 82 (used to select a desired track surface), and option 80 (used to select a desired race distance).

Limits may be established on the amount of  
15 wagers that may be placed using the automatic criteria wagering feature. For example, the wagering application may set default monetary limits of \$500.00 in total wagers, \$700.00 in losses, or \$1000.00 in winnings. Limits may be set in dollar amounts or may  
20 be based on the number of wagers placed. The wagering application may set different limits for different users or types of user. Users may also set wagering limits. When the wagering application senses that a limit is about to be exceeded, the user may be notified  
25 and provided with an opportunity to authorize further automatic wagering.

An expiration time may be set for automatic wagers. For example, the application or the user may establish a two-week time limit for wagers. No wagers  
30 will be placed automatically after two weeks without further authorization. Any suitable time period may be used as a default or user-selected expiration time.

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If desired, the wagering application may provide the user with an opportunity to define a time window during which a particular set of wager criteria are valid. For example, the application may allow the user to make wager criteria valid only on Saturdays and Sundays between the hours of 1:00 PM to 4:00 PM. The time window may involve multiple days of the week and multiple time windows during each day.

In the example of FIG. 6, the user has selected the wager type "WIN" and the wager amount "\$5." When the user presses the OK remote control key, the wagering application may provide the user with a summary of the conditions that have been established for criteria wagering, as shown in FIG. 7. The rows of screen 88 of FIG. 7, each contain information on a different set of automatic wagering criteria. For example, row 90 provides a summary of one set of criteria that have been established (i.e., a particular horse, a particular surface, and a particular distance) that when satisfied result in the automatic placing of a \$5 win wager. Row 92 provides a summary of another set of wagering criteria. When the criteria of row 92 have been satisfied, the wagering application may automatically place a \$10 win wager.

25           Screen 88 may contain options such as new  
option 94 (to create a new set of wagering criteria),  
delete option 96 (to delete one of the rows of wagering  
criteria), and view option 98 (to view additional  
information on a set of wagering criteria). The user  
30 may select one of these options using movable highlight  
region 100. If the user selects delete option 96 or  
view option 98, the wagering application may place a

30 may select one of these options using movable highlight  
region 100. If the user selects delete option 96 or  
view option 98, the wagering application may place a

movable highlight region on top of one of the rows in FIG. 7. The user may use the highlight region to select a desired row to delete or to select a desired row for which it is desired to view additional  
5 information.

As shown in FIG. 8, if the user selects view option 98 of FIG. 7, the wagering application may provide a display screen such as screen 102 in which the view option is highlighted (as indicated by the  
10 "H") by, e.g., being displayed in a color such as yellow that is different than the color in which the remaining options are displayed (e.g., blue). Highlight region 104 of FIG. 8 may be used to select a row. A screen such as screen 106 of FIG. 9 may be  
15 displayed when the user selects one of the rows in screen 102 of FIG. 8. In screen 106 of FIG. 9, a wagering criteria details region 108 is displayed as an overlay on top of the contents of screen 102 of FIG. 8. Wagering criteria details region 108 may contain more  
20 detailed information on the wagering criteria, the wager type, and the wager amount that are associated with the row that was selected in screen 102 of FIG. 8. Wagering criteria details region 108 may contain, for example, information on the name of the horse that was  
25 selected and the type of surface. If desired, the information displayed in region 110 of wagering criteria region 108 may be scrolled (e.g., using up and down arrow keys). The user may cancel the presentation of the wagering criteria details region 108 (the  
30 overlay) by pressing the OK remote control key.

Region 112 of screen 106 of FIG. 9 (and other screens such as the screens of FIGS. 2-8) may be used

Illustrative steps involved in using system 10 (FIG. 1) to provide an interactive wagering service with criteria wagering capabilities are shown in FIG. 10. At step 114, the wagering application may provide the user with an opportunity to select wagering criteria. For example, the wagering application may provide on-screen options that allow the user to select desired wagering criteria from various lists or groups of criteria. Search capabilities may be provided to facilitate the searching for criteria of interest when there are many possible selections to be made (e.g., when selecting a desired horse name, jockey name, racetrack, etc.). Criteria may also be selected using other suitable input interfaces such as voice recognition systems, interactive voice response systems, interfaces using pointing devices such as trackballs, mice, touch pads, etc. Any other suitable arrangement or a combination of these arrangements may be used if desired.

5 illustrative examples, any suitable type of race-related or wagering-related information may be used as wagering criteria if desired.

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The user may be notified when the criteria are satisfied using an on-screen prompt (e.g., a pop-up overlay that is displayed over a television program that the user is watching or other information that is currently being displayed). The user may also be notified when the criteria are satisfied by alerting the user with an audible reminder. The user may be notified by sending a reminder to the user as e-mail, a paging message, or other suitable electronic message. Transaction processing and subscription management

system 24 may notify the user that the criteria have been satisfied by placing a telephone call to the user. Notifications may be distributed to users at user computer equipment 20 (FIG. 1), user television  
5 equipment 22, or user telephone equipment 32. For example, e-mail notifications may be provided to users with a cellular telephone with e-mail capabilities, a handheld computing device or other small portable device with e-mail capabilities, etc. Paging messages  
10 and telephone calls may be handled similarly.

If desired, notifications may be provided to users with a different platform than the platform that is used to establish the wagering criteria. For example, the user may provide the wagering application  
15 with the wagering criteria by pressing touch tone telephone buttons in response to audible prompts from interactive voice response equipment at transaction processing and subscription management system 24 (FIG. 1). The user may be notified when the criteria have  
20 been satisfied using an e-mail message to the user's personal computer at work or an electronic message sent to the user's handheld computing device. These are merely illustrative examples of suitable arrangements for notifying the user when the wagering criteria have  
25 been satisfied. Any suitable notification arrangement may be used. If desired, when certain wagering criteria are satisfied the wagering application may both place an automatic wager and notify the user.

If the action selected at step 116 is an  
30 automatic wager, the wagering application may provide the user with an opportunity to specify a desired wager type and desired wager amount at step 118.



The selected action may be taken at step 120. For example, a wager may be automatically placed, the user may be notified that a wagering opportunity has arisen that satisfies the selected wagering criteria, etc. Certain notifications may be made using software (e.g., software that is part of the wagering application) that is running at least partially on the user's local system (e.g., user television equipment 22, user computer equipment 20, or user telephone equipment 32). For example, a pop-up menu or audible alert may be automatically generated at the user's location when the wagering application detects that the user's wagering criteria have been satisfied. Other notifications may be made using software that is running remotely. For example, e-mail notifications, paging notifications, and telephone call notifications may be generated at transaction processing and subscription management system 24 or other suitable remote facility. If desired, a combination of local and remote techniques may be used to provide notification and automatic wagering functions.

The foregoing is merely illustrative of the principles of this invention and various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention.